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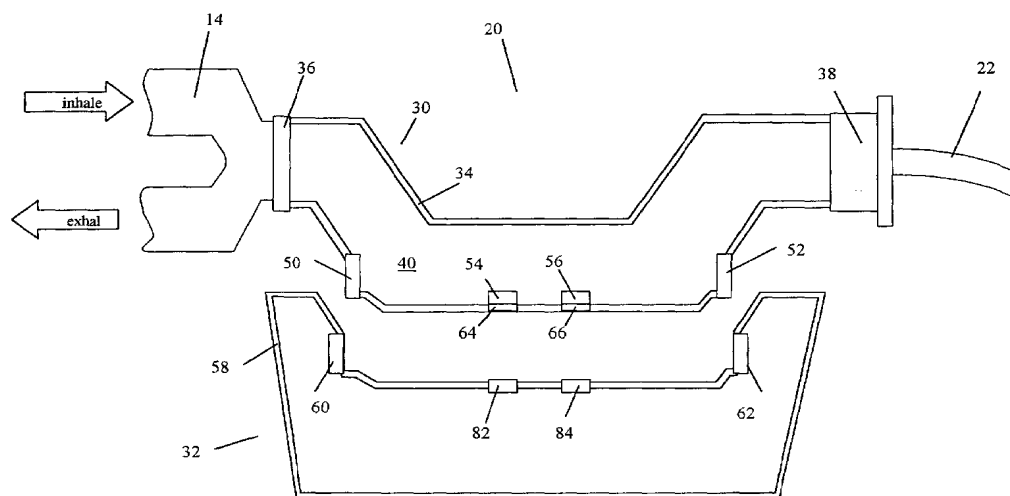
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(54) Title: **INDIRECT CALORIMETER FOR MEDICAL APPLICATIONS**



(57) **Abstract:** An improved respiratory analyser comprises a disposable flow module and non-disposable electronics module. An improved ventilator system comprises a supply of respiratory gases, a ventilator line for directing the respiratory gases to a patient, a flow module holder located in series with the ventilator line into which a flow module can be inserted, and an electronics module which connects to the flow module. In a preferred embodiment, the flow module and electronics module operate in combination to provide the functionality of an indirect calorimeter, so as to determine the metabolic rate of the patient. Feeding of an intubated patient can be controlled using determined patient metabolic rates. Other respiratory parameters can be determined by the system, such as peak flow, tidal volume, end-tidal concentrations, and respiratory quotient. The system provides a non-invasive method of cardiac output determination. A flow module can also be inserted into the mouth or internal respiratory tube of a person.

